

Listing and Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) An isolated nucleic acid sequence which comprises a sequence selected from the group consisting of: Sequence ID No. 1, Sequence ID No. 2, and sequence ID No 3.
2. (Original) An isolated nucleic acid sequence according to Claim 1 in which the nucleic acid sequence is a DNA sequence.
3. (Original) An isolated nucleic acid sequence according to Claim 1 or 2 in which the nucleic acid sequence consists of a sequence selected from the group consisting of: Sequence ID No. 1, Sequence ID No. 2, and Sequence ID No. 3.
4. (Currently amended) An isolated protein encoded by a nucleic acid ~~sequences~~ sequence according to ~~any of Claims 1 to 3~~ Claim 1.
5. (Original) An isolated protein according to Claim 4 in which the protein is a cell surface glycoprotein.
6. (Original) An isolated protein as claimed in Claim 4 or 5 which is an oncofetal protein expressed by an astrocytoma cell.
7. (Currently amended) An isolated protein as claimed in ~~any of Claims 4 to 6~~ Claim 4 having a molecular weight of approximately 200kda.
8. (Currently amended) An antibody which binds specifically to the protein of ~~any of claims 4 to 7~~ Claim 4, and any other antibody that competes directly or by stearic hindrance therewith for said protein.
9. (Original) An antibody as claimed in Claim 8 which is a monoclonal antibody.

10. (Original) An antibody as claimed in Claim 8 or 9 which is a class M immunoglobulin with a kappa-light chain.
11. (Currently amended) A fragment of the antibody of ~~any of Claims 8 to 11~~ Claim 8, which fragment binds specifically to ~~the protein of the invention~~ a protein encoded by a nucleic acid sequence consisting of a sequence selected from the group consisting of Sequence ID No. 1, Sequence ID No. 2, and Sequence ID No. 3.
12. (Currently amended) A method of producing an antibody to a protein comprising:
[[[-]]] innoculating an animal with a protein according to ~~any of Claims 4 to 7~~ Claim 4, wherein the protein elicits an immune response in the animal to produce the antibody; and
[[[-]]] isolating the antibody from the animal.
13. (Original) A method of producing an antibody as claimed in Claim 11 in which the animal is innoculated with G-CCM cells of ECACC deposit No. 86022702.
14. (Currently amended) A method for producing a hybridoma, comprising the step of innoculating a suitable subject with a protein according to ~~any of Claims 4 to 7~~ Claim 4, or an antigenic fragment thereof, and fusing cells from the subject with a myeloma cell to produce the hybridoma.
15. (Original) A method according to Claim 14 in which the subject is innoculated with G-CCM cells of ECACC deposit No. 86022702.
16. (Original) A hybridoma cell obtainable according to the method of Claims 14 or 15.
17. (Original) A hybridoma cell of, or derived from, ECACC Deposit No. 03073001.

18. (Original) A monoclonal antibody obtainable from a hybridoma cell of, or derived from, ECACC Deposit No. 03073001.
19. (Currently amended) A method of detecting an astrocytoma cell in a sample of human cells, which method comprises the step of contacting the cell sample with an antibody according to ~~any of Claims 8 to 10, Claim 8~~ or 18, or a fragment thereof, and detecting those cells which have bound the antibody or fragment, wherein binding of the antibody or the fragment to a cell is indicative of an astrocytoma cell.
20. (Original) A method as claimed in Claim 19 in which the antibody is a monoclonal antibody.
21. (Currently amended) A method of detecting a primary breast carcinoma cell in a sample of human cells, which method comprises the step of contacting the cell sample with an antibody according to ~~any of Claims 8 to 10, Claim 8~~ or 18, or a fragment thereof, and detecting those cells which have bound the antibody or fragment, wherein binding of the antibody or the fragment to a cell is indicative of a primary breast carcinoma cell.
22. (Original) A method according to Claim 21 in which the antibody is a monoclonal antibody.
23. (Currently amended) A diagnostic kit for diagnosing the presence of a cell selected from the group consisting of: astrocytoma cells; malignant melanoma secondary tumour cells; and primary breast carcinoma cells, the kit comprising a (primary) antibody according to ~~any of Claims 8 to 10, Claim 8~~ or 18, or a fragment thereof.
24. (Original) A diagnostic kit as claimed in Claim 23 in which the antibody comprises a detectable label.

25. (Original) A diagnostic kit as claimed in Claim 23 in which the kit comprises a secondary antibody which specifically binds the (primary) antibody, which secondary antibody comprises a detectable label.
26. (Currently amended) A biological targeting device comprising an antibody according to ~~any of Claim 8 to 10; Claim 8 or 18~~, or a fragment thereof, and a therapeutic ligand.
27. (Currently amended) A therapeutic antibody comprising an antibody according to ~~any of Claims 8 to 10; Claim 8 or 18~~, or a fragment thereof.
28. (Currently amended) A method of treating cancer in an individual by inducing apoptosis in cells in the individual which express an MQ1 protein, which method comprises a step of treating an individual with an antibody of ~~any of Claims 8 to 10; Claim 8 or 18~~, or a fragment thereof.
29. (Original) A method according to Claim 28 in which the cancer is selected from the group consisting of: malignant astrocytomas ; malignant melanoma secondary tumours; and primary breast carcinomas.
30. (Currently amended) A method according to Claim 28 or 29 in which the antibody is a monoclonal antibody.
31. (Currently amended) A method as claimed in ~~any of Claims 28 to 30~~ Claim 28 in which the antibody is humanised.
32. (Currently amended) A polynucleotide which is anti-sense to an isolated nucleic acid sequence of ~~any of Claims 1 to 3~~ Claim 1.
33. (Original) An anti-sense polynucleotide as claimed in Claim 32 comprising the sequence of Sequence ID No. 4.

34. (Original) An anti-sense polynucleotide as claimed in Claim 32 consisting of the sequence of Sequence ID No. 4.
35. (Original) Method of treating cancer in an individual by inducing apoptosis in cells in the individual which express an MQ1 protein, which method comprises a step of treating an individual with an anti-sense polynucleotide of any of Claims 32 to 34.
36. (Original) A method according to Claim 35 in which the cancer is selected from the group consisting of: malignant astrocytomas; malignant melanoma secondary tumours; and primary breast carcinomas.
37. (New) An isolated protein encoded by a nucleic acid sequence according to Claim 2.
38. (New) An isolated protein encoded by a nucleic acid sequence according to Claim 3.